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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/833,106	04/04/97	SMALL J	74892MSS

001333
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WM01/1220

EXAMINER	
WHITE, M	
ART UNIT	**PAPER NUMBER**
2612	18

DATE MAILED: 12/20/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C (Rev. 2/95)
*U.S. GPO: 2000-473-000/44602

1- File Copy

Office Action Summary	Application No. 08/833,106	Applicant(s) Small	
	Examiner Mitchell White	Group Art Unit 2612	

[X] Responsive to communication(s) filed on 10/6/00

[X] This action is **FINAL.**

[ ] Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle* 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

[X] Claim(s) 1-7 and 11-24 ~~is~~/are pending in the applicat

Of the above, claim(s) 14-24 ~~is~~/are withdrawn from consideration

[ ] Claim(s) ______ is/are allowed.

[X] Claim(s) 1-7 and 11-13 ~~is~~/are rejected.

[ ] Claim(s) ______ is/are objected to.

[ ] Claims ______ are subject to restriction or election requirement.

Application Papers

[ ] See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

[ ] The drawing(s) filed on ______ is/are objected to by the Examiner.

[ ] The proposed drawing correction, filed on ______ is [ ] approved [ ] disapproved.

[ ] The specification is objected to by the Examiner.

[ ] The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

[ ] Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

[ ] All [ ] Some* [ ] None of the CERTIFIED copies of the priority documents have been

[ ] received.

[ ] received in Application No. (Series Code/Serial Number) ______.

[ ] received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: ______

[ ] Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

[X] Notice of References Cited, PTO-892

[ ] Information Disclosure Statement(s), PTO-1449, Paper No(s). ______

[ ] Interview Summary, PTO-413

[ ] Notice of Draftsperson's Patent Drawing Review, PTO-948

[ ] Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-7 and 11-13 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. ***The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:***

> ***(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.***

1-3, 5-7

3. **Claims ~~1-7~~ and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koike et al. (US 5,237,401) in view of Parulski et al. (US 5,040,068) and Ring et al. (US 5,754,184).**

Regarding claim 1, Koike et al. discloses, in fig. 1, a color image reading apparatus in which an image is formed on a multi-chip image sensor (5), converted into an electrical signal, and applied to a head amplifier section (6), where it is digitized and amplified. The image signal is then sent to a signal processing section (7) where it is initially processed and stored in memory (8, col. 4, lines 37-45). The image signal data is then compressed by the CPU (11) and stored in

memory (12, col. 5, lines 54-58). Koike et al. further discloses a memory (13) which stores color correcting coefficients calculated by CPU (11) which allows for compensation of color reproducing characteristics of output equipment such as a printer (col. 2, lines 10-22) by using the CPU (11) and the stored correction coefficients stored in memory (13) to correct the image data (col. 6, lines 8-26). Koike et al. further discloses a first RGB space transformation (col. 2, lines 26-48). Koike et al. does not explicitly state that the image data is decompressed. However, it would have been obvious to decompress the image data in order to use the processed image data. Koike et al. does not explicitly stated that memory (12) is a nonvolatile memory. However, it would have been obvious for memory (12) to be a nonvolatile memory so that the image data would not be lost due to power failure. Koike et al. does not explicitly state that the signal processing section (7) performs color filter interpolation. However, Parulski et al. discloses an electronic imaging apparatus that includes a digital processor (168) which performs color filter interpolation (col. 7, lines 55-60). Therefore, it would have been obvious to modify the Koike et al. system to include the Parulski et al. digital processor to perform all the digital signal processing required by the system. Neither Koike et al. or Parulski et al. disclose a first and second color transformation. However, Ring et al. discloses a color management system that converts or transforms color signals between device dependent color spaces and device-independent space using reference image viewing conditions for the device-independent space wherein a first color transform is used for an input device such as a image scanner (col. 6, line 33-col. 7, line 19) and a second color transform which is used for an output device such as a monitor

(col. 7, line 53- col. 8, line 32) wherein those of ordinary skill could then substitute the particular device, such as a camera input device and a printer output device (col. 5, lines 36-55). It would have been obvious for the Koike et al. color reading image apparatus to include a first and second color transformation as taught by Ring et al. to provide a system for characterizing the color response for output devices as well as input devices.

Regarding claim **2**, Koike et al. discloses, in fig. 1, a memory (13) which stores correction coefficients used to correct image data (col. 5, lines 23-30).

Regarding claim **3**, Koike et al. performing error diffusion in response to a requisition from a printer and controlling a series of operations from the processing of the signals from the color original with the CCD sensor up to the transmitting of the signals through the error diffusing circuit (col. 1, lines 33-40).

Regarding claim **5**, Koike et al. discloses, in fig. 1, a color image reading apparatus in which an image is formed on a multi-chip image sensor (5), converted into an electrical signal, and applied to a head amplifier section (6), where it is digitized and amplified. The image signal is then sent to a signal processing section (7) where it is initially processed and stored in memory (8, col. 4, lines 37-45). The image signal data is then compressed by the CPU (11) and stored in memory (12, col. 5, lines 54-58). Koike et al. further discloses a memory (13) which is a nonvolatile memory (col. 6, lines 37-43) that stores color correcting coefficients calculated by CPU (11) which allows for compensation of color reproducing characteristics of output equipment such as a printer such as color space transformation (col. 2, lines 10-22) by using the

CPU (11) and the stored correction coefficients stored in memory (13) to correct the image data (col. 6, lines 8-26). Since Koike et al. discloses compensating for output equipment such as a printer, a printer interface is inherent in the Koike et al. image reading apparatus. Koike et al. does not explicitly state that the image data is decompressed. However, it would have been obvious to decompress the image data in order to use the processed image data. Koike et al. does not explicitly stated that memory (12) is a nonvolatile memory. However, it would have been obvious for memory (12) to be a nonvolatile memory so that the image data would not be lost due to power failure. Koike et al. does not explicitly state that the signal processing section (7) performs color filter interpolation. However, Parulski et al. discloses an electronic imaging apparatus that includes a digital processor (168) which performs color filter interpolation (col. 7, lines 55-60). Therefore, it would have been obvious to modify the Koike et al. system to include the Parulski et al. digital processor to perform all the digital signal processing required by the system. Neither Koike et al. or Parulski et al. disclose a first and second color transformation. However, Ring et al. discloses a color management system that converts or transforms color signals between device dependent color spaces and device-independent space using reference image viewing conditions for the device-independent space wherein a first color transform is used for an input device such as a image scanner (col. 6, line 33-col. 7, line 19) and a second color transform which is used for an output device such as a monitor (col. 7, line 53- col. 8, line 32) wherein those of ordinary skill could then substitute the particular device, such as a camera input device and a printer output device (col. 5, lines 36-55). It would have been obvious for the Koike

et al. color reading image apparatus to include a first and second color transformation as taught by Ring et al. to provide a system for characterizing the color response for output devices as well as input devices.

Regarding claim **6**, Koike et al. discloses, in fig. 1, a memory (13) which stores correction coefficients used to correct image data (col.5, lines 23-30).

Regarding claim **7**, Koike et al. performing error diffusion in response to a requisition from a printer and controlling a series of operations from the processing of the signals from the color original with the CCD sensor up to the transmitting of the signals through the error diffusing circuit (col. 1, lines 33-40).

Regarding claim **11**, Koike et al. discloses, in fig. 1, a color image reading apparatus in which an image is formed on a multi-chip image sensor (5), converted into an electrical signal, and applied to a head amplifier section (6), where it is digitized and amplified. The image signal is then sent to a signal processing section (7) where it is initially processed and stored in memory (8, col. 4, lines 37-45). The image signal data is then compressed by the CPU (11) and stored in memory (12, col. 5, lines 54-58). Koike et al. further discloses a memory (13) which stores color correcting coefficients calculated by CPU (11) which allows for compensation of color reproducing characteristics of output equipment such as a printer (col. 2, lines 10-22) by using the CPU (11) and the stored correction coefficients stored in memory (13) to correct the image data (col. 6, lines 8-26). Koike et al. does not explicitly state that the image data is decompressed. However, it would have been obvious to decompress the image data in order to use the processed

image data. Koike et al. does not explicitly stated that memory (12) is a nonvolatile memory. However, it would have been obvious for memory (12) to be a nonvolatile memory so that the image data would not be lost due to power failure. Koike et al. does not explicitly state that the signal processing section (7) performs color filter interpolation. However, Parulski et al. discloses an electronic imaging apparatus that includes a digital processor (168) which performs color filter interpolation (col. 7, lines 55-60). Therefore, it would have been obvious to modify the Koike et al. system to include the Parulski et al. digital processor to perform all the digital signal processing required by the system. Neither Koike et al. or Parulski et al. disclose a first and second color transformation. However, Ring et al. discloses a color management system that converts or transforms color signals between device dependent color spaces and device-independent space using reference image viewing conditions for the device-independent space wherein a first color transform is used for an input device such as a image scanner (col. 6, line 33- col. 7, line 19) and a second color transform which is used for an output device such as a monitor (col. 7, line 53- col. 8, line 32) wherein those of ordinary skill could then substitute the particular device, such as a camera input device and a printer output device (col. 5, lines 36-55). It would have been obvious for the Koike et al. color reading image apparatus to include a first and second color transformation as taught by Ring et al. to provide a system for characterizing the color response for output devices as well as input devices.

Regarding claim **12**, Koike et al. discloses, in fig. 1, a memory (13) which stores correction coefficients used to correct image data (col.5, lines 23-30).

Regarding claim **13**, Koike et al. performing error diffusion in response to a requisition from a printer and controlling a series of operations from the processing of the signals from the color original with the CCD sensor up to the transmitting of the signals through the error diffusing circuit (col. 1, lines 33-40).

4. **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koike et al. in view of Ring et al.**

Regarding claim **4**, Koike et al. discloses, in fig. 1, a color image reading apparatus in which an image is formed on a multi-chip image sensor (5), converted into an electrical signal, and applied to a head amplifier section (6), where it is digitized and amplified. The image signal is then sent to a signal processing section (7) where it is initially processed and stored in memory (8, col. 4, lines 37-45). The image signal data is then compressed by the CPU (11) and stored in memory (12, col. 5, lines 54-58). Koike et al. further discloses a memory (13) which is a nonvolatile memory (col. 6, lines 37-43) that stores color correcting coefficients calculated by CPU (11) which allows for compensation of color reproducing characteristics of output equipment such as a printer such as color space transformation (col. 2, lines 10-22) by using the CPU (11) and the stored correction coefficients stored in memory (13) to correct the image data (col. 6, lines 8-26). Since Koike et al. discloses compensating for output equipment such as a printer, a printer interface is inherent in the Koike et al. image reading apparatus. Koike et al. does not explicitly state that the image data is decompressed. However, it would have been obvious to decompress the image data in order to use the processed image data. Koike et al. does

not explicitly stated that memory (12) is a nonvolatile memory. However, it would have been obvious for memory (12) to be a nonvolatile memory so that the image data would not be lost due to power failure. Koike et al. does not disclose a first and second color transformation. However, Ring et al. discloses a color management system that converts or transforms color signals between device dependent color spaces and device-independent space using reference image viewing conditions for the device-independent space wherein a first color transform is used for an input device such as a image scanner (col. 6, line 33-col. 7, line 19) and a second color transform which is used for an output device such as a monitor (col. 7, line 53- col. 8, line 32) wherein those of ordinary skill could then substitute the particular device, such as a camera input device and a printer output device (col. 5, lines 36-55). It would have been obvious for the Koike et al. color reading image apparatus to include a first and second color transformation as taught by Ring et al. to provide a system for characterizing the color response for output devices as well as input devices.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6306 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitchell White whose telephone number is (703) 305-8155. The examiner can normally be reached on Monday-Thursday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on (703) 305-4929.

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

MLW

December 8, 2000

WGarber

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